

Claims

What is claimed is:

1. An apparatus, comprising:
 - a substrate;
 - a semiconductor die disposed on the substrate and having an integrated circuit electrically connected to the substrate;
 - a load source, at least part of which is disposed over and in operative contact with semiconductor die; and
 - a support member disposed on the substrate, the support member comprising a flexible support device in operative contact with the load source.
2. The apparatus of claim 1, wherein the flexible support device is arranged to flex dependent on a position of the support member relative to the semiconductor die.
3. The apparatus of claim 1, wherein the support member is a stiffener.
4. The apparatus of claim 1, wherein the support member peripherally encloses the semiconductor die.
5. The apparatus of claim 1, wherein the flexible support device is a spring.
6. The apparatus of claim 1, wherein the flexible support device is partially embedded within the support member.
7. The apparatus of claim 1, wherein the load source comprises a heat dissipation device.

8. The apparatus of claim 6, wherein the heat dissipation device is arranged to dissipate heat emanating from the semiconductor die.
9. The apparatus of claim 1, wherein an active side of the semiconductor die is disposed facing the substrate.
10. The apparatus of claim 1, further comprising:
 - an adhesive disposed between the substrate and the support member.
11. A computer system, comprising:
 - a circuit board;
 - a substrate electrically connected to the circuit board, the substrate having electrically conductive paths arranged to pass signals between the circuit board and an integrated circuit;
 - a semiconductor die disposed on the substrate and having the integrated circuit fabricated thereon, wherein a load source is disposed over the semiconductor die; and
 - a support member attached to the substrate and connected to a flexible support device in supportive contact with the load source.
12. The computer system of claim 11, wherein the flexible support device is arranged to flex dependent on a change to a position of the support member.
13. The computer system of claim 11, wherein the flexible support device is a spring.
14. The computer system of claim 11, wherein the support member peripherally surrounds the semiconductor die.

15. The computer system of claim 11, wherein the flexible support device is partially embedded in the support member.
16. The computer system of claim 11, further comprising:
 - a layer of adhesive arranged to attach the support member and the substrate.
17. The computer system of claim 11, wherein the load source comprises a heat dissipation device.
18. An integrated circuit package, comprising:
 - means for processing data;
 - means for housing at least a portion of the means for processing;
 - means for supporting the means for housing; and
 - support means for bearing at least part of a load placed on the integrated circuit package, wherein the support means comprises flexible means for supporting the at least part of the load, and wherein a state of the flexible means is dependent on a position of the support means.
19. The integrated circuit package of claim 18, wherein the support means peripherally surrounds the means for housing.
20. The integrated circuit package of claim 18, further comprising:
 - means for attaching the support means to the means for supporting the means for housing.